REMARKS

This paper is submitted in response to the Final Office Action dated September 8, 2005. A request for a one-month extension of time has been submitted concurrently herewith, along with authorization to charge Deposit Account 23-3000 the sum of $120.00 for the one-month Extension of Time Fee. Since January 8, 2006 is a Sunday, the period of response therefore extends up to and includes January 9, 2006, and this paper is timely filed. In addition, a Request for Continued Examination (RCE) is being filed concurrently herewith, along with authorization to charge Deposit Account 23-3000 the sum of $790.00 for the RCE Fee. Reconsideration and allowance of all pending claims by the Examiner are respectfully requested.

In the subject Office Action, claims 1-2, 4, 6-12, 17-19, 21, 23-29, 34-35 and 37-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lohita et al., "Power Amplifier Linearization Using Cubic Spline Interpolation" of record in view of U.S. Patent No. 6,788,151 to Shvarts et al. Furthermore, claims 1-2, 4-12, 17-19 21-29, 34-35 and 37-42 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of pending U.S. Patent Application No. 10/342,633 in view of Shvarts et al.

Applicants respectfully traverse the Examiner's rejections to the extent that they are maintained. Applicants have amended claims 1, 18 and 35 and added new claims 43-48. Applicants respectfully submit that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed.

As Applicants have noted previously, with respect to the provisional obviousness-type double patenting rejection, it is Applicants' understanding that when a provisional double patenting rejection is issued, it is proper to allow one application to proceed to issue and require a Terminal Disclaimer to be filed in the other application. As such, Applicants continue to decline to file a Terminal Disclaimer at this time. In addition, in

this regard, the Examiner will note that Applicants have added new claims 47 and 48, which respectively recite the subject matter of claims 5 and 22. Claims 5 and 22 were rejected solely on the basis of obviousness-type double patenting, and were not rejected based upon the combination of Lohita et al. and and Shvarts et al. Accordingly, Applicants respectfully request a finding of the allowability of these claims over the prior art of record.

Next, turning to the art-based rejections, and specifically to the rejection of claim 1, this claim has now been amended to clarify that the output loop is "tunable to frequency select a portion of a frequency band" and that the intermodulation distortion product measured in the output loop is "disposed in the selected portion of the frequency band." As such, claim 1 now clarifies the tunable nature of the output loop that permits the output loop to measure an intermodulation distortion product in a selected portion of a frequency band for the RF power amplifier. Support for these amendments may be found, for example, in Fig. 1, at page 12 of the specification, and in claims 5 and 22 as originally filed.

In rejecting claim 1, the Examiner relies primarily on Lohita et al. for disclosing structure that the Examiner considers analogous to the output loop recited in claim 1. However, the output loop illustrated in Fig. 1 of Lohita et al. is not tunable in nature, nor is the output loop capable of frequency selecting a portion of a frequency band and measuring an intermodulation distortion product within that band. Of note, the local oscillator illustrated in Fig. 1 of Lohita et al. is coupled to both the quadrature modulator in the input loop and the quadrature demodulator in the output loop. It is the quadrature modulator in the input loop that modulates the input signal on an RF carrier, and as such, the local oscillator in Lohita et al. is necessarily set to the carrier frequency. As such, the quadrature demodulator in the output loop is likewise coupled to receive the carrier frequency, and thus the output loop of Lohita et al. is not capable of selecting a specific

portion of a frequency band for measurement of an intermodulation distortion product disposed in that band.

Furthermore, in the Examiner's comments in the prior Office Action, the Examiner relied on the supposed measurement of third and fifth intermodulation products by Lohita et al. as described at the bottom of page 677. Of note, however, it appears that the measurements of the intermodulation products were on a simulation model of an RF amplifier design for the purposes of the publication, rather than being measurements that are performed by the electronics of the actual amplifier circuit. Indeed, the reference discusses the use of test tones to obtain the measurements. There is no indication in Lohita et al. of any structure within an actual amplifier circuit for performing such measurements, particularly in the specific manner recited in claim 1.

Accordingly, Applicants respectfully submit that Lohita et al. does not disclose the output loop recited in claim 1. Furthermore, given that Shvarts et al. is merely cited for allegedly for disclosing a peak control circuit, Shvarts et al. likewise fails to disclose the output loop recited in claim 1, or to provide any motivation to one of ordinary skill in the art to modify Lohita et al. to provide a predistortion arrangement including the output loop recited in claim 1. Claim 1 is therefore novel and non-obvious over Lohita et al. and Shvarts et al. Reconsideration and allowance of claim 1, and of claims 2, 4-12 and 17 which depend therefrom, are therefore respectfully requested. Furthermore, given that claim 1 is generic to all species, Applicants additional request consideration and allowance of withdrawn claims 13-16.

Next, with respect to the rejections of independent claims 18 and 35, each of these claims have been amended in a similar manner to claim 1. Claim 18 has been amended to clarify that the output loop is "tunable to frequency select a portion of a frequency band" and that the intermodulation distortion product being measured is "disposed in the selected portion of the frequency band." Claim 35 has been amended to additionally recite the concept of "frequency selecting a portion of a frequency band for an output of

the RF power amplifier using a tunable output loop" and to clarify that the intermodulation distortion product being measured is "disposed in the selected portion of the frequency band." As discussed above in connection with claim 1, Lohita et al. and Shvarts et al. fail to disclose a tunable output loop capable of frequency selecting a portion of a frequency band and measuring an intermodulation distortion product disposed in that selected portion. As such, claims 18 and 35 are patentable over the prior art of record for the same reasons as presented above for claim 1. Reconsideration and allowance of claims 18 and 35, as well as of claims 19, 21-29, 34 and 37-42 which depend therefrom, are therefore respectfully requested. Furthermore, given that claim 18 is generic to all species, Applicants additionally request consideration and allowance of withdrawn claims 30-33.

As a final matter, the Examiner will note that Applicants have added new dependent claims 43-46. Claims 43 and 45 respectively depend from claims 1 and 18, and each recites that the output loop comprises a filter, an intermediate frequency to baseband converter circuit, and a processor, support for which may be found in claims 5 and 22 as filed. New claims 44 and 46 respectively depend from claims 43 and 45, and additionally recite that the output loop comprises a coupler, a mixer, a tunable local oscillator, and an amplifier. Moreover, each of these claims clarify that the filter is a bandpass filter. Applicants respectfully submit that none of these claims are disclosed by Lohita et al. or Shvarts et al., and accordingly, are additionally patentable over the prior art of record. Consideration and allowance of these claims are therefore respectfully requested.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits

are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

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Date

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